26-Jan-09

Department of Environmental Quality
Common Wealth of Virginia
West Central Regional Office
3019 Peters Creek Road
Roanoke, VA 24019

Dear Ms Becky France

SUBJECT: REISSUANCE EXISTING PERMIT VPDES
PERMIT NO. VA0032115
MORRIS HILL WASTE WATER TREATMENT PLANT

This letter is in connection with the reissuance of the U.S. Army Corps of Engineers Permit Number VA0032115. Please find enclosed the permit application form (Form 2A NPDES) completed. You will find the original and three copies as required; a copy will be furnished to the Virginia Department of Health as requested.

If there are any questions, feel free to contact us by phone at 540-962-1138 from 8am to 3.30PM Monday thru Friday.

Sincerely,

William C. Siple

William C. Siple
Facility Operator
US Army Corps of Engineers

P.O. BOX 432
COVINGTON, VA
24426

FACILITY NAME AND PERMIT NUMBER:
Morris Hill WWTP VA0032115

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1. Facility Information.

Facility name: Morris Hill Sewage Treatment Plant

Mailing Address: P.O. Box 432
Covington, VA 24426-0432

Contact person: Mr. William C. Siple

Title: Facility Operator

Telephone number: 540-962-1138

Facility Address (not P.O. Box): Coles Mountain Road (SR 605)
Covington, VA 24426

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A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name: _____

Mailing Address: _____

_____

Contact person: _____

Title: _____

Telephone number: _____

Is the applicant the owner or operator (or both) of the treatment works?

_____ owner _____ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

_____ facility _____ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES VA0032115 PSD _____

UIC _____ Other _____

RCRA _____ Other _____

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
Morris Hill Campground	55 Campsites	Sanitary	US Forest Service
Morris Hill Picnic Area	1 Restroom	Sanitary	US Army Corps of Engineers
Visitor Center/Main Complex	8 Employees Visitors (varies)	Sanitary	US Army Corps of Engineers

Total population served _____

FACILITY NAME AND PERMIT NUMBER:
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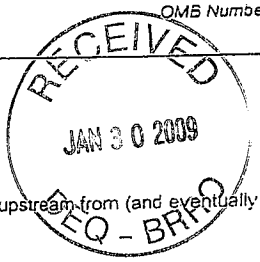

A.5. Indian Country.

a. Is the treatment works located in Indian Country?

____ Yes X No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

____ Yes X No

A.6. **Flow.** Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate 0.015 mgd

	2006 Two Years Ago	2007 Last Year	2008 This Year	
b. Annual average daily flow rate	.0018	.0018	.0015	mgd
c. Maximum daily flow rate	.0028	.0023	.0026	mgd

A.7. **Collection System.** Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

XX	Separate sanitary sewer	100 %
____	Combined storm and sanitary sewer	____ %

A.8. **Discharges and Other Disposal Methods.**

a. Does the treatment works discharge effluent to waters of the U.S.? X Yes ____ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent	1
ii. Discharges of untreated or partially treated effluent	NONE
iii. Combined sewer overflow points	NONE
iv. Constructed emergency overflows (prior to the headworks)	NONE
v. Other ____	

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? ____ Yes X No

If yes, provide the following for each surface impoundment:

Location: ____

Annual average daily volume discharged to surface impoundment(s) ____ mgd

Is discharge ____ continuous or ____ intermittent?

c. Does the treatment works land-apply treated wastewater? ____ Yes X No

If yes, provide the following for each land application site:

Location: ____

Number of acres: ____

Annual average daily volume applied to site: ____ Mgd

Is land application ____ continuous or ____ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? X Yes ____ No

Removal of Solids from Tank

Form Approved 1/14/99
OMB Number 2040-0086

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe). Sludge from Septic Tanks is pumped into tank truck and hauled to another plant when it builds up. Last done 2004

If transport is by a party other than the applicant, provide:

Transporter name. Miller's Septic Tank Service

Mailing Address: 201 S. Lexington Ave.
Covington, VA 24426

Contact person: David Miller

Title: Owner Operator

Telephone number: 540-962-6366

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For each treatment works that receives this discharge, provide the following:

Name: Covington Sewage Treatment Plant

Mailing Address: Edgemont Drive
Covington, VA 24426

Contact person: George Jamison

Title: Chief Operator

Telephone number: 540-965-6328

If known, provide the NPDES permit number of the treatment works that receives this discharge. _____

Provide the average daily flow rate from the treatment works into the receiving facility. N/A mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)? _____ Yes X No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed of by this method: _____

Is disposal through this method _____ continuous or _____ intermittent?

FACILITY NAME AND PERMIT NUMBER:
Morris Hill WWTP VA0032115

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WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a,** go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

a. Outfall number: 1

b. Location:
(City or town, if applicable) Alleghany County (Zip Code) Virginia
(County) 37° 56' 54" (State) 79° 56' 57"
(Latitude) (Longitude)

c. Distance from shore (if applicable): 20 ft.

d. Depth below surface (if applicable): 2 ft.

e. Average daily flow rate: .0017 mgd 3 yr. avg

f. Does this outfall have either an intermittent or a periodic discharge? X Yes ____ No (go to A.9.g.)

If yes, provide the following information:

Number of times per year discharge occurs: 73
Average duration of each discharge: 20 minutes
Average flow per discharge: .0017 mgd
Months in which discharge occurs: 12

g. Is outfall equippec with a diffuser? ____ Yes X No

A.10. Description of Receiving Waters.

a. Name of receiving water: Jackson River

b. Name of watershed (if known): Jackson River Basin

United States Soil Conservation Service 14-digit watershed code (if known): ____

c. Name of State Management/River Basin (if known): James River (Upper)

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 02080201

d. Critical low flow of receiving stream (if applicable): Average flow (3yr) - 460 CFS
acute 100 cfs chronic 150 cfs

e. Total hardness of receiving stream at critical low flow (if applicable): Unknown mg/l of $CaCO_3$

FACILITY NAME AND PERMIT NUMBER:
Morris Hill WWTP VA0032115

A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

____ Primary ____ Secondary
____ Advanced _X_ Other. Describe: Septic Tank. Sand Filters. Chlorination

b. Indicate the following removal rates (as applicable):

Design BOD_5 removal or Design $CBOD_5$ removal ____ %
Design SS removal ____ %
Design P removal NA %
Design N removal NA %
Other ____ %

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Chlorination

If disinfection is by chlorination, is dechlorination used for this outfall? ____ Yes _X_ No

d. Does the treatment plant have post aeration? _X_ Yes ____ No

A.12. **Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.**

Outfall number: 1

PARAMETER*	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.5	s.u.	[redacted]	[redacted]	[redacted]
pH (Maximum)	7.3	s.u.	[redacted]	[redacted]	[redacted]
Flow Rate	.0054	MGD	.0017	MGD	3 yrs
Temperature (Winter) Jan. Feb. Mar Oct. Nov. Dec 2008	15.5	C°	11.5	C°	5
Temperature (Summer) May. June. July August. Sept. 2008	24.0	C°	21.6	C°	10

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.								
BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5	30	MG/L	9	MG/L	15	S.M 18th ED. 5210-B	5 MG/L
	CBOD-5							
FECAL COLIFORM								
TOTAL SUSPENDED SOLIDS (TSS)		12	MG/L	5	MG/L	9	S.M 2540D 18th ED	1.0 MG/L

END OF PART A.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

PUBLIC NOTICE BILLING INFORMATION FORM

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once a week for two consecutive weeks in accordance with 9 VAC 25-31-290.C.2:

Newspaper for Public Notice: Virginian Review (Covington, VA)

Agent/Department to be billed: US Army Corps of Engineers

Owner: US Army Corps of Engineers

Applicant's Address: P.O Box 432
Covington, VA 24426

Agent's Telephone No: 540-962-1138

Authorizing Agent: William C. Siple
Signature

William Siple
Printed Name

Acting Facility Manager
Title

Facility Name: Morris Hill WWTP
Permit No. VA0032115

Please return to:

Becky L. France
Department of Environmental Quality
3019 Peters Creek Road
Roanoke, VA 24019
Fax No. (540) 562-6860

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

✓ Basic Application Information packet

Supplemental Application Information packet:

_____ Part D (Expanded Effluent Testing Data)

_____ Part E (Toxicity Testing: Biomonitoring Data)

_____ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

_____ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title: Eugene R. Batty Acting Facility Mgr Gathright Dam

Signature: Eugene R. Batty

Telephone number: 540-962-9261

Date signed: 1/29/09

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

VPDES PERMIT APPLICATION ADDENDUM - SUPPLEMENTARY INFORMATION

A. General Information

1. Entity to whom the permit is to be issued: US Army Corps of Engineers
Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. Classify the discharge as one of the following by checking the appropriate line:

X a. Existing discharge

____ b. Proposed discharge

____ c. Proposed expansion of an existing discharge

3. Year the current wastewater treatment facility began operation: 1981

B. Location

1. Is this facility located within city or town boundaries? Y /(N)

2. (New Issuances & Modifications Only) What is the tax map parcel number for the land where this facility is located? _____

3. For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities? _____

4. What is the total acreage of the property on which the treatment plant is located? _____ acres

5. Attach to the back of this application a location map(s) which may be traced from or is/are a production of a U.S. Geological Survey topographic quadrangle(s) or other appropriately scaled contour map(s). The location map(s) shall show the following:

a. Treatment Plant
b. Discharge point
c. Receiving waters
d. Boundaries of the property on which the treatment plant is located, or to be located.
e. Distance from the treatment plant to the nearest: (Indicate "not applicable" for any distance greater than 2000 feet)
   i. Residence NA
   ii. Distribution line for potable water supply NA
   iii. Reservoir, well, or other source of water supply NA
   iv. Recreational area NA
f. Distance from the discharge point to the nearest:
   (Indicate "not applicable" for any distance greater than 15 miles)
   i. Downstream community 3 miles
   ii. Upstream and downstream water intake points NA
   iii. Shellfishing waters NA
   iv. Wetlands area NA
   v. Downstream impoundment NA
   vi. Downstream recreational area NA

C. Discharge Description

1. Provide a brief description of the wastewater treatment scheme. Also, attach to the back of this application, a process flow diagram showing each process unit of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system.
   1. Septic Tank
   2. Dosing Tank
   3. Siphons discharge to sand filters
   4. Chlorination
   5. Dosing Tank
   6. Chlorine Contact Tank
   7. Aeration Channel

2. What is the design average flow of this facility? .015 MGD
   Industrial facilities: What is the max. 30-day avg. production level (include units)? .0054

3. In addition to the above design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? Y / N

   If "Yes", please specify the other flow tiers (in MGD) or production levels: _____
   Please consider: Is your facility's design flow considerably greater than your current flow? Do you plan to expand operations during the next five years?

4. Nature of operations generating wastewater:
   _____

   100 % of flow from domestic connections/sources
   Number of private residences to be served by the wastewater treatment facilities:
   __ 0 __ 1-49 __ 50 or more

   100 % of flow from non-domestic connections/sources

5. Mode of discharge: __Continuous __Intermittent x Seasonal
   Describe frequency and duration of intermittent or seasonal discharges:
   _____

6. Identify the characteristics of the receiving stream at the point just above the facility's discharge point:
   x Permanent stream, never dry
   __ Intermittent stream, usually flowing, sometimes dry
   __ Ephemeral stream, wet-weather flow, often dry
   __ Effluent-dependent stream, usually or always dry
   __ Lake or pond at or below the discharge point
   __ Other: _____

E. Anticipated Phasing Schedule for Plant Capacity - Proposed / Expanding Discharges

If this application is for a proposed or expanded discharge(s), complete the phasing schedule below beginning with the year in which construction completion is anticipated and progressing in increments of 5 years for 30 years thereafter.

Proposed Design Capacity: _____ MGD

Anticipated Date of Construction Completion: _____, _____
Month Year

Years after Completion	Projected Flow (MGD)
0	
5	
10	
15	
20	
25	
30	

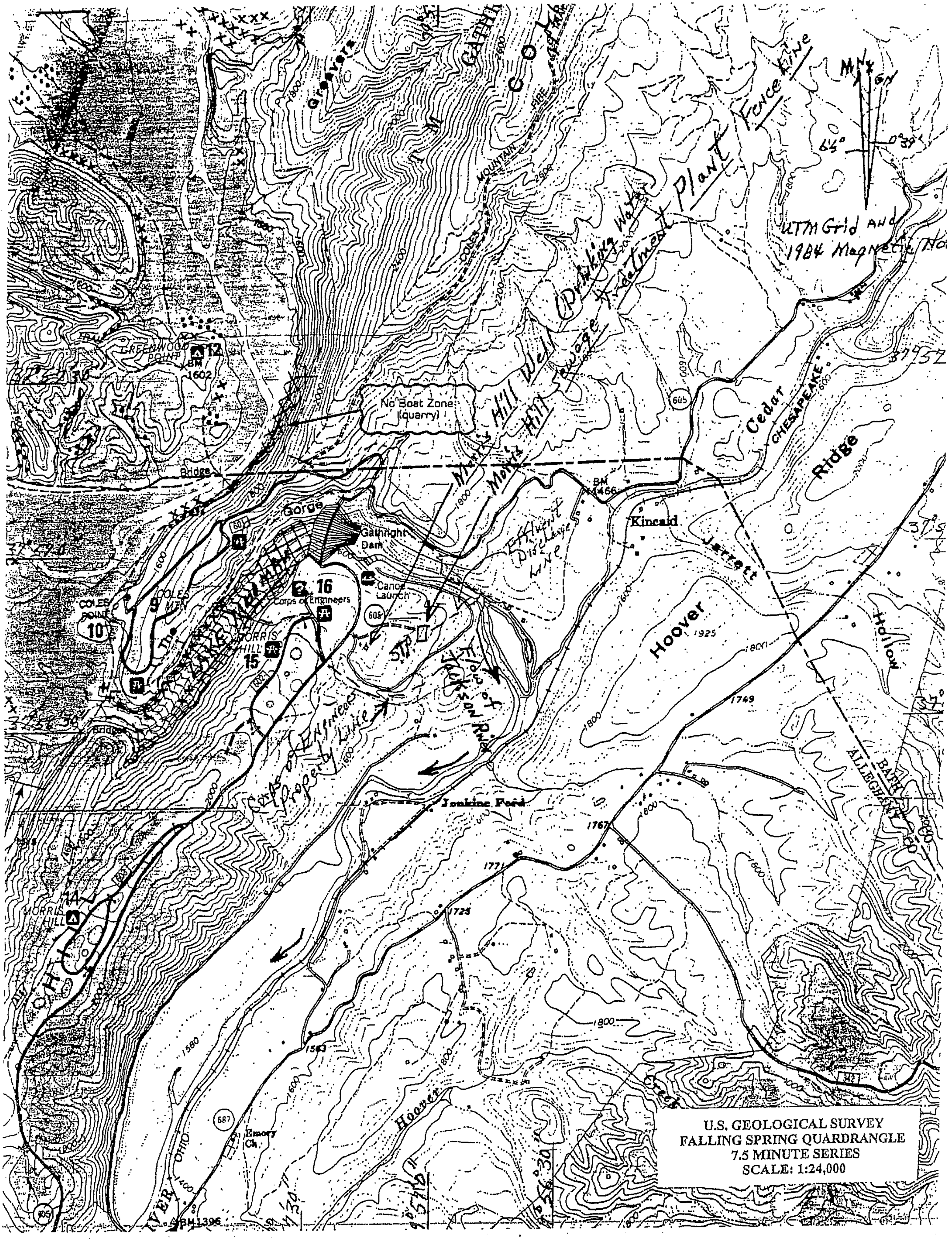
F. Interim Facilities

Are the wastewater treatment facilities interim? (designed for a useful life of less than 5 years)

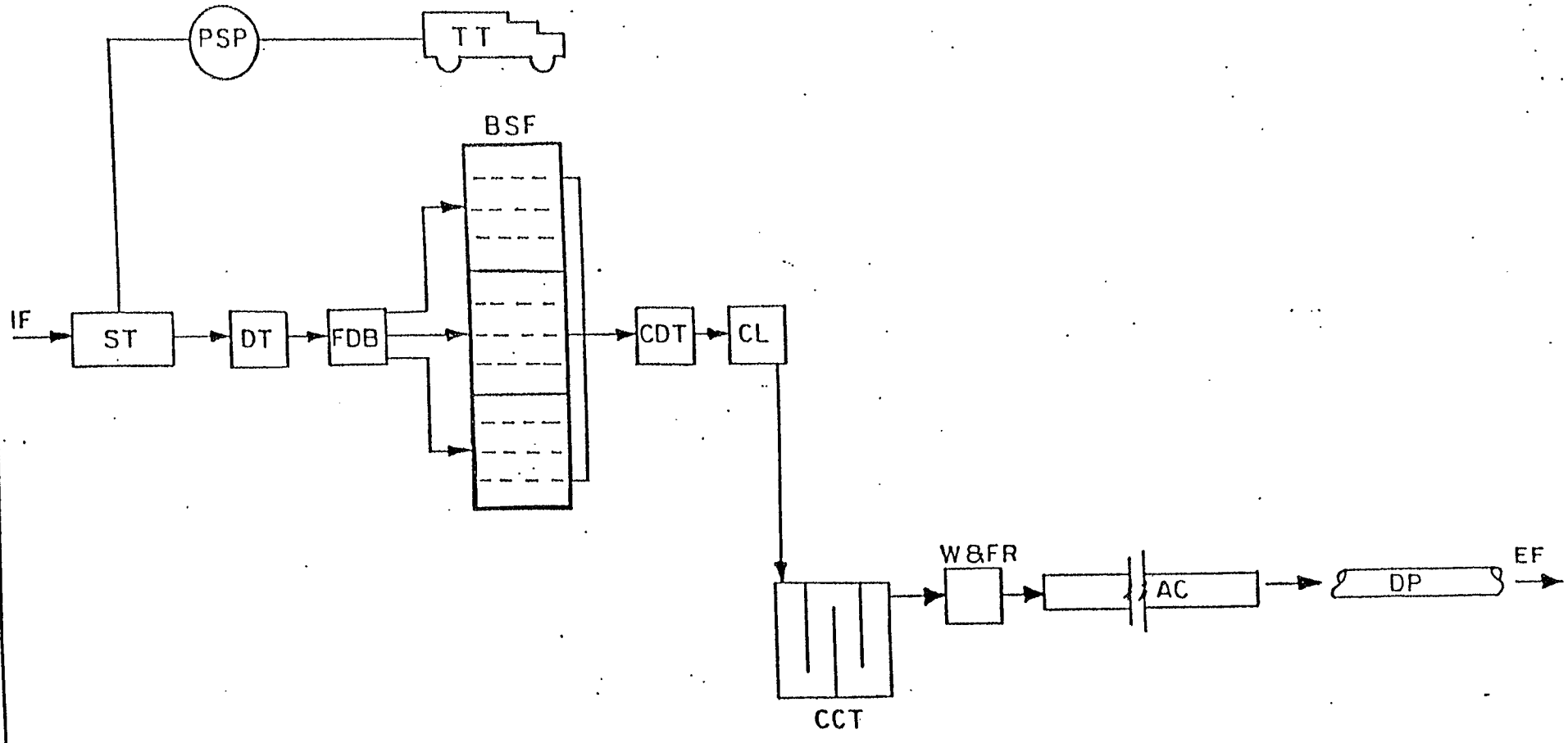
_____ Yes _____ No

If so, provide the estimated date to be discontinued (month, year) _____ , and the name and location of the intended replacement facility.

_____
Name / Location



U.S. GEOLOGICAL SURVEY
FALLING SPRING QUARDRANGLE
7.5 MINUTE SERIES
SCALE: 1:24,000

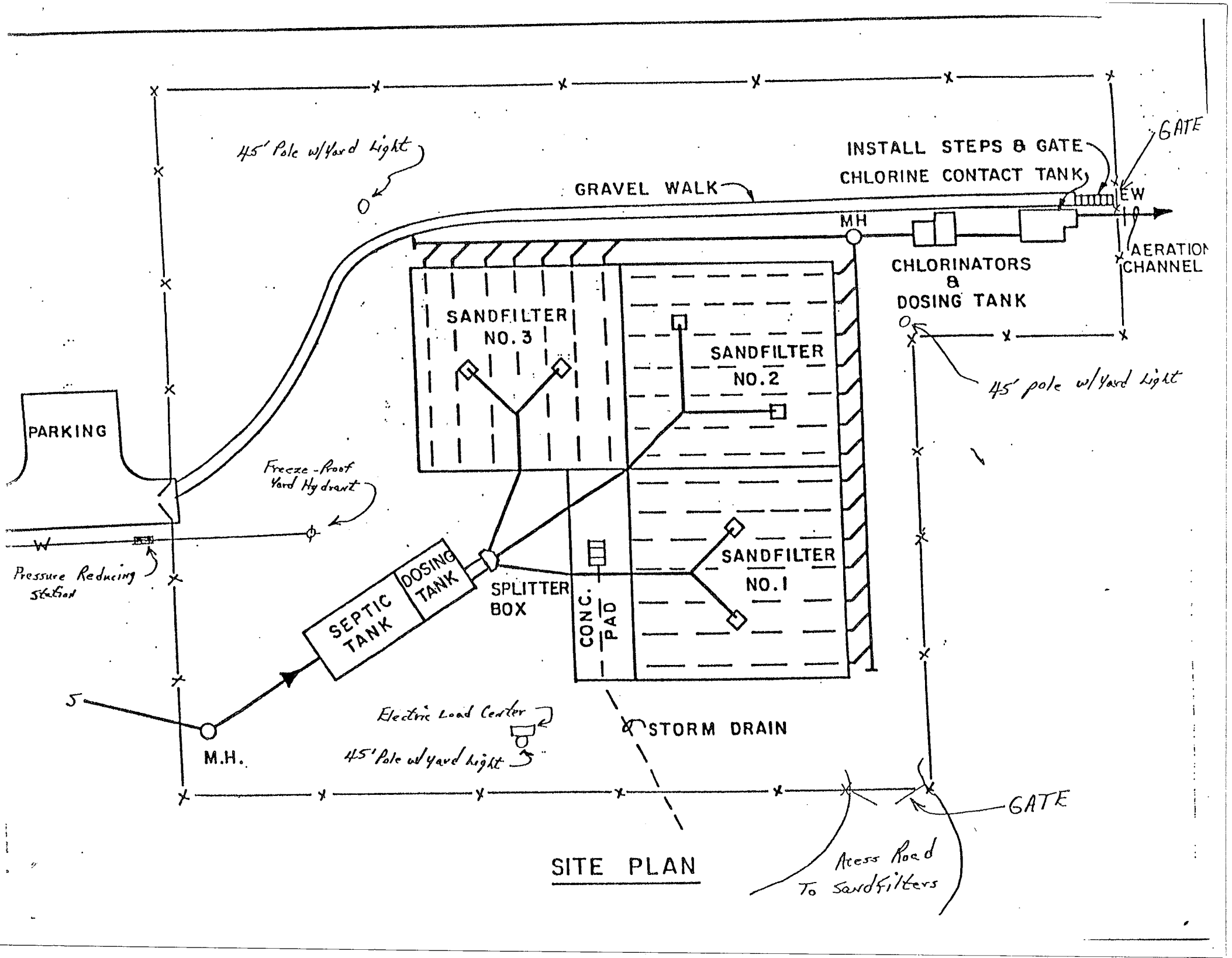


MORRIS HILL STP FLOW DIAGRAM

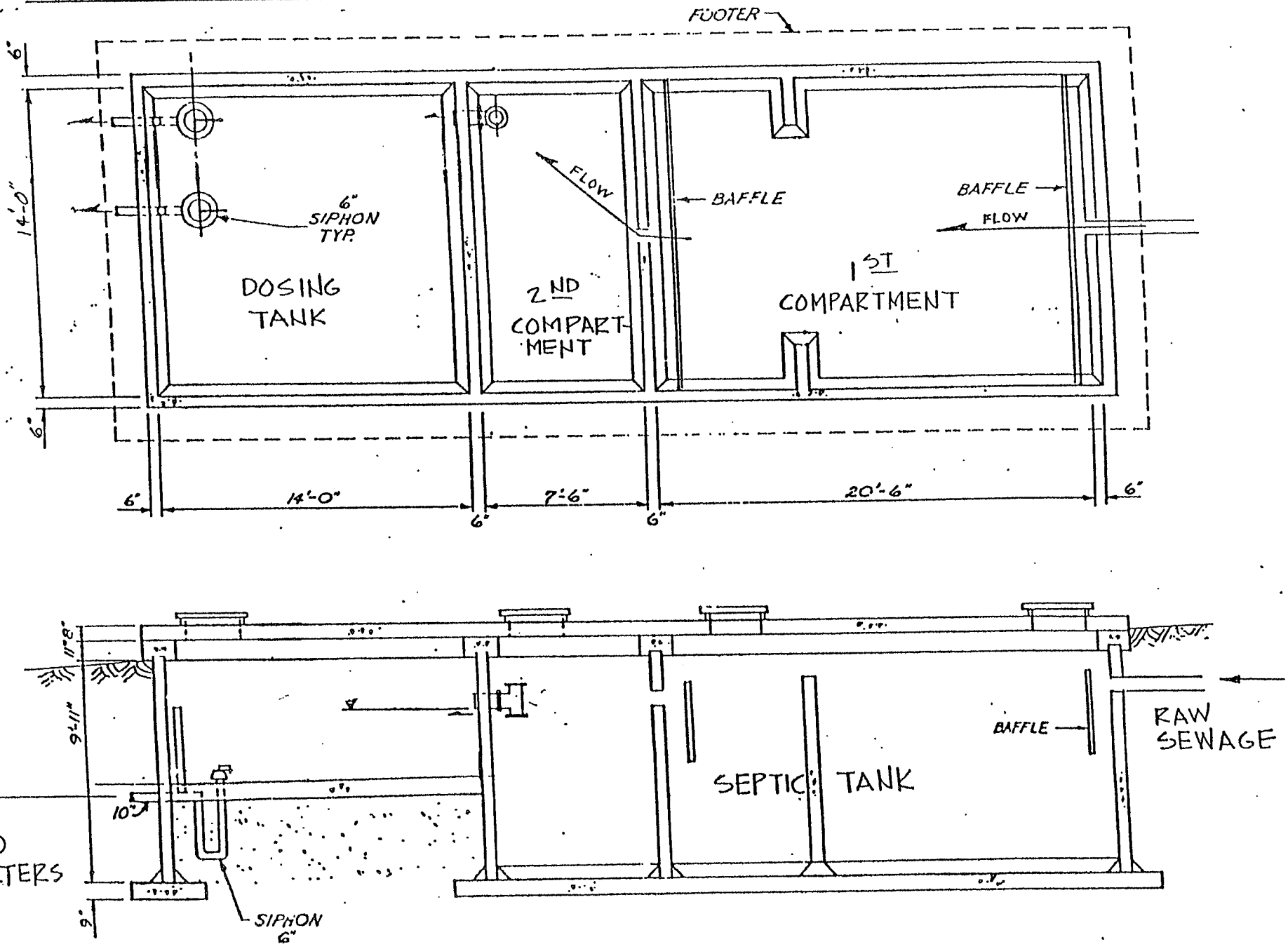
PLATE 2

ABBREVIATIONS

TT - TANK. TRUCK
PSP - PORTABLE SLUDGE PUMP
IF - INFLUENT SEWAGE
ST - SEPTIC TANK
DT - DOSING TANK
FDB - FLOW DISTRIBUTION BOX
BSF - BIOLOGICAL (INTERMITTENT) SAND FILTERS
CDT - CHLORINATOR DOSING TANK
CL - CHLORINATORS
CCT - CHLORINE CONTACT TANK
W & FR - WEIR & FLOW RECORDER
AC - AERATION CHANNEL
DP - DIFFUSER PIPE
EF - EFFLUENT

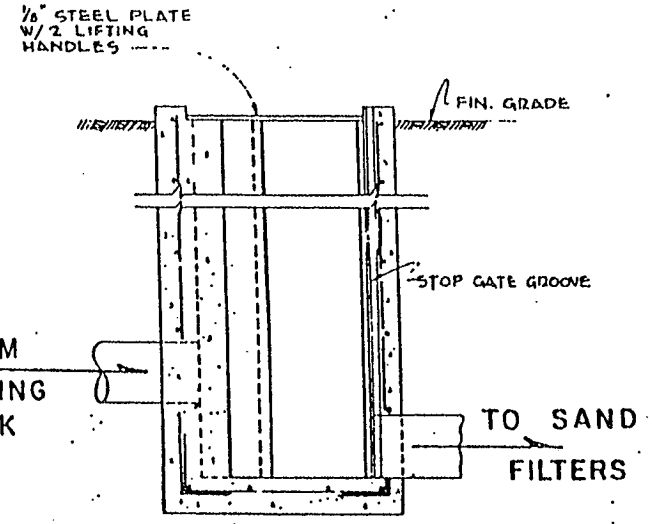

45' Pole w/Yard Light
GRAVEL WALK
INSTALL STEPS & GATE
CHLORINE CONTACT TANK
GATE
EW
MH
AERATION
CHANNEL
CHLORINATORS
&
DOSING TANK
45' pole w/Yard Light
SANDFILTER
NO. 3
SANDFILTER
NO. 2
SANDFILTER
NO. 1
PARKING
Freeze-Proof
Yard Hydrant
W
Pressure Reducing
Station
SEPTIC
TANK
DOSING
TANK
SPLITTER
BOX
CONC.
PAD
5
M.H.
Electric Load Center
45' Pole w/Yard Light
STORM DRAIN
GATE
Access Road
To Sandfilters

SITE PLAN

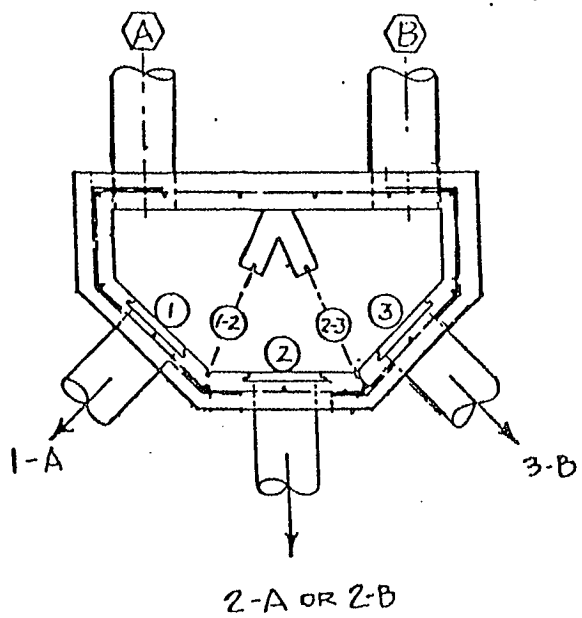


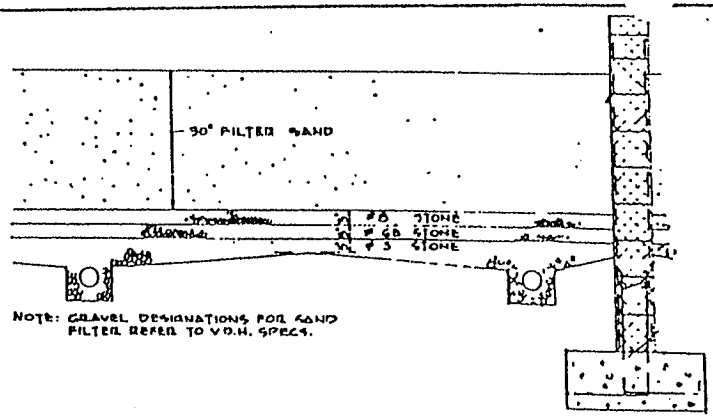
SEPTIC TANK

PLATE 3



DISTRIBUTION BOX





TYPICAL FILTER SECTION

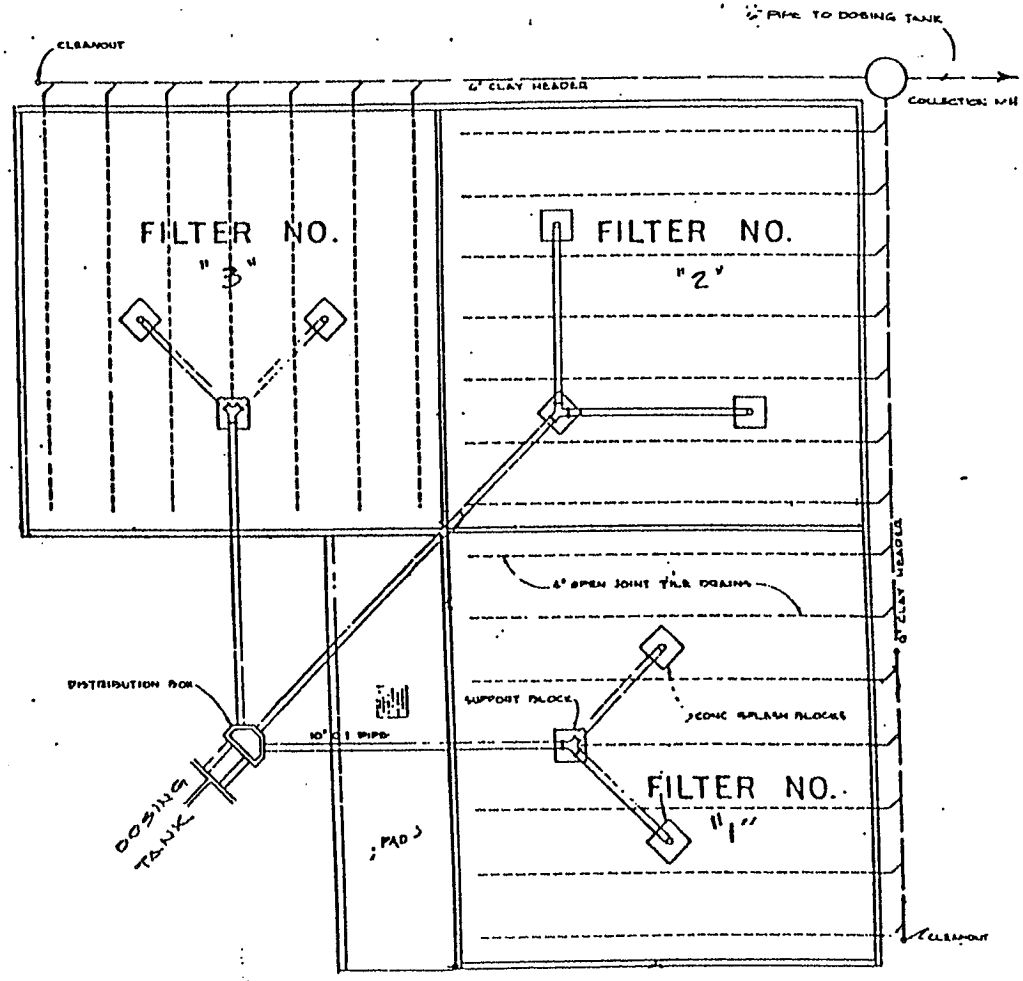
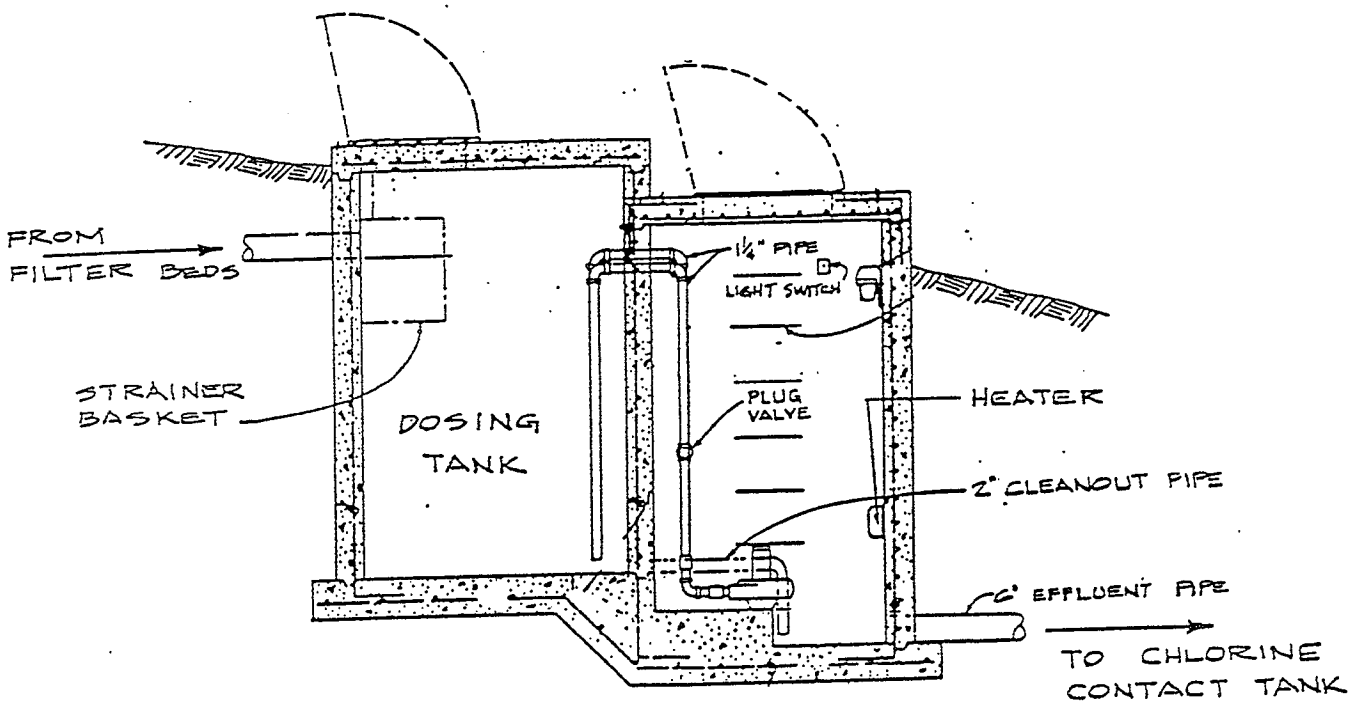
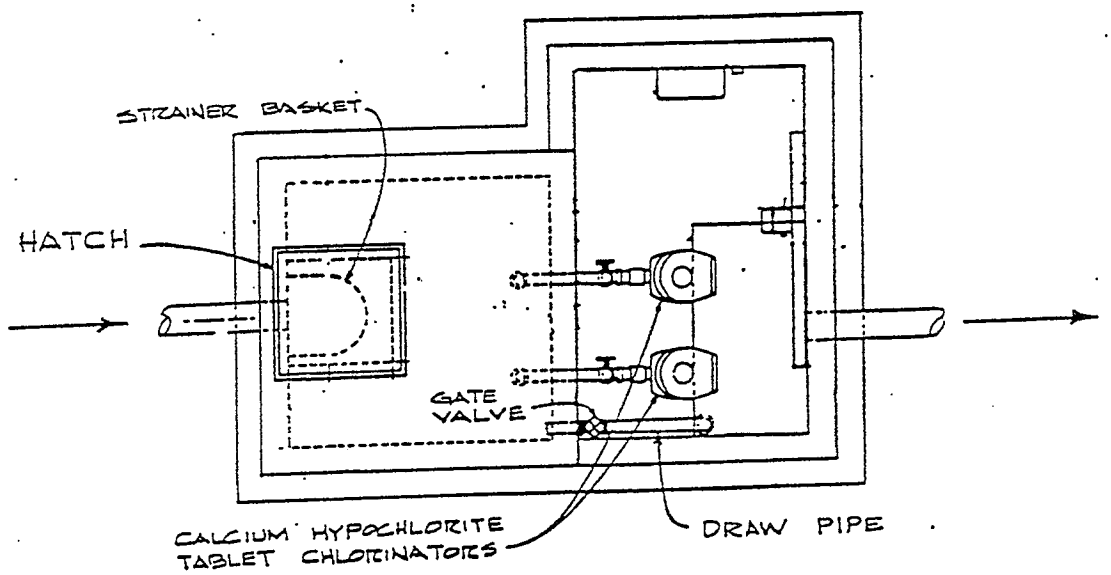


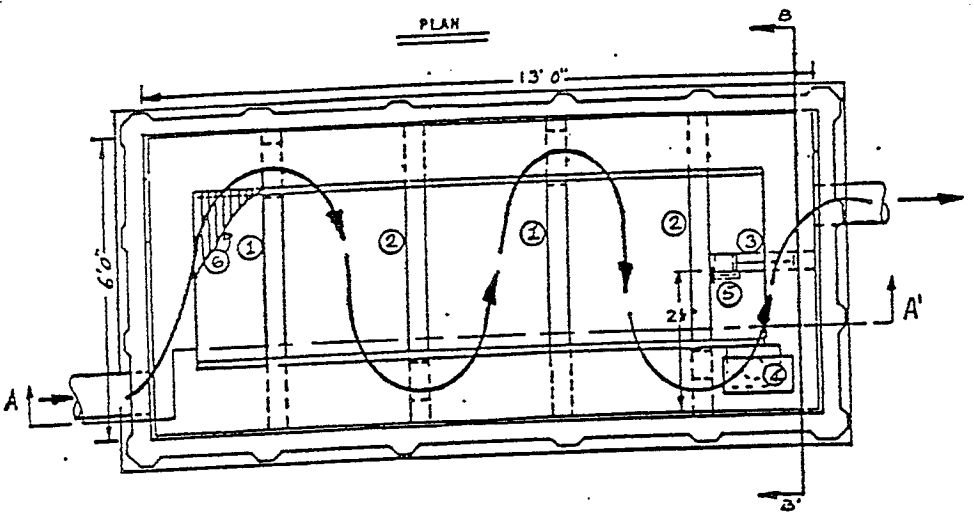
PLATE 4

BIO SAND FILTERS



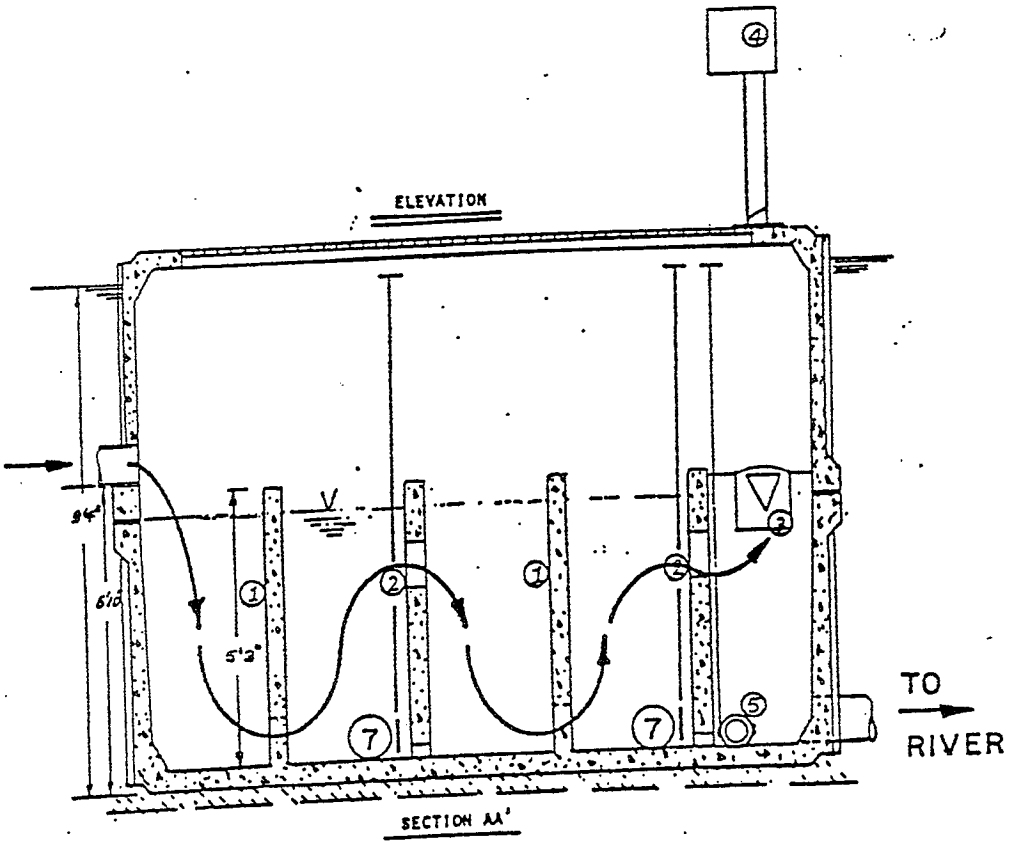


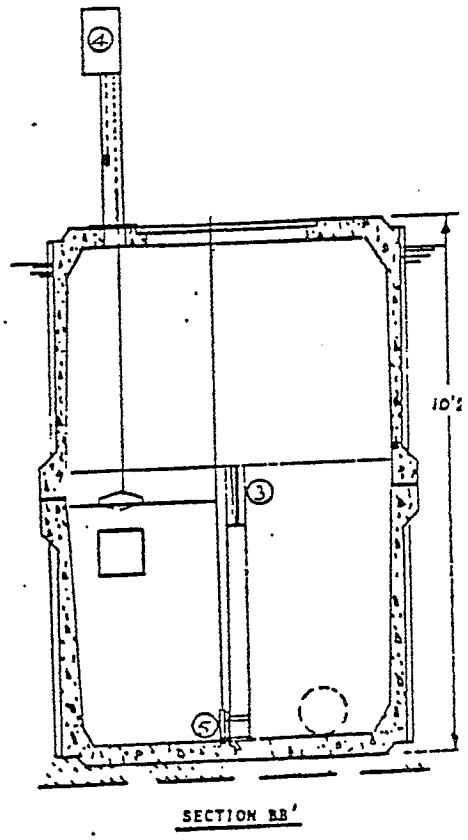
CHLORINATOR DOSING TANK & CHLORINATORS



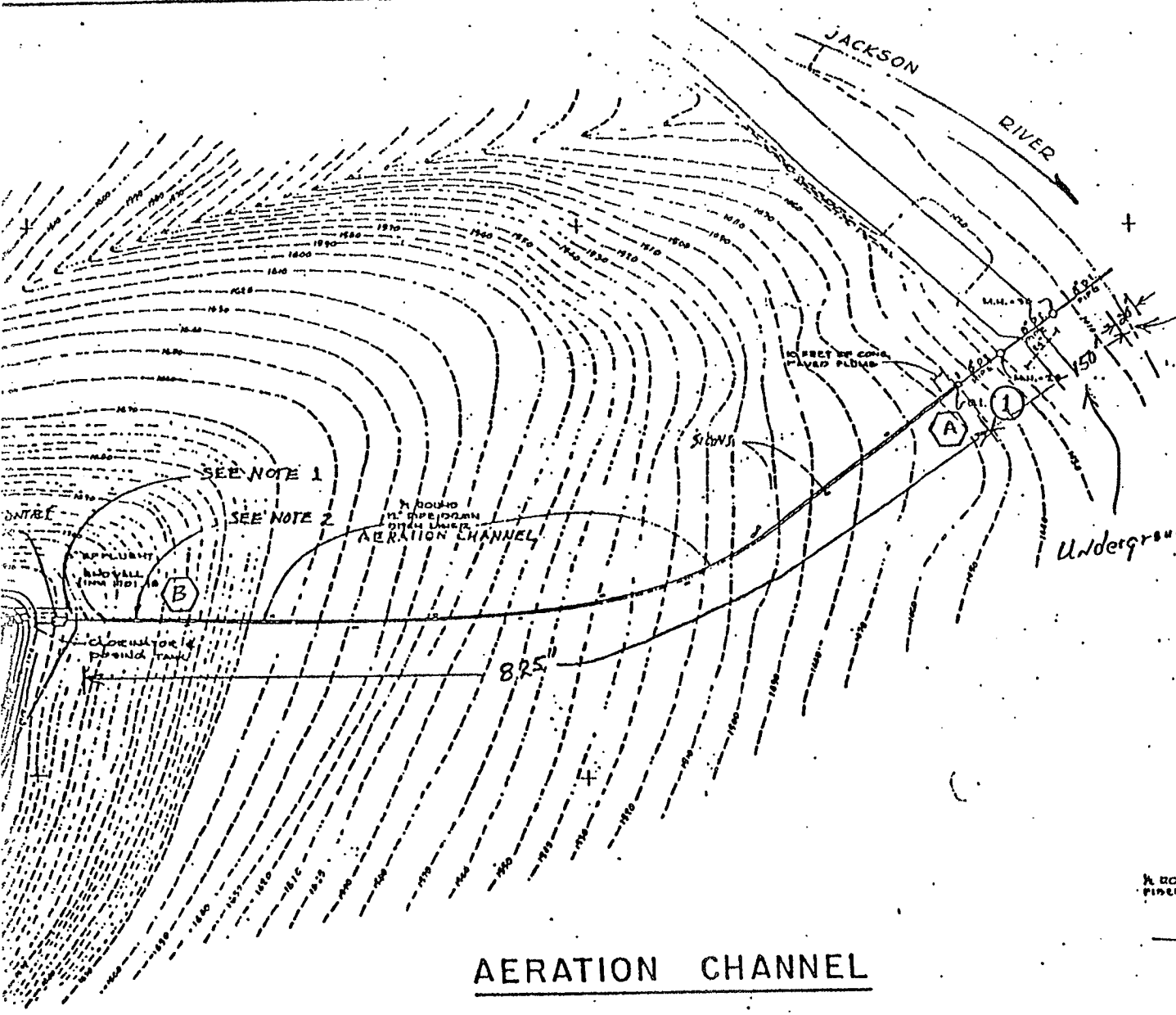
① BAFFLE - 4" CONCRETE w/ 10" X 10" BOTTOM OPENING.
② BAFFLE - 4" CONCRETE w/ 10" X 10" TOP OPENING & 2" x 3" BOTTOM DRAIN.
③ "V" NOTCH WEIR - 30° x 8" HT.
④ FLOW RECORDER w/ ENCLOSURE AND PIPE STAND.
⑤ 4" SHEAR GATE w/ HANDLE (M & H STYLE # 44)
⑥ ALUMIN. GRATING, 1 BAR 1" (KIA 400, S=.345 IN.² / KG IND.)
⑦ DRAIN GATES

FLOW PATH

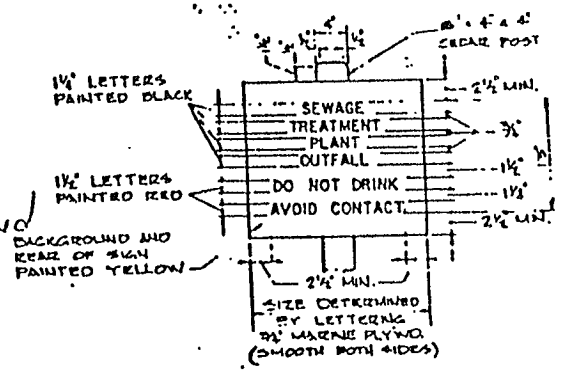




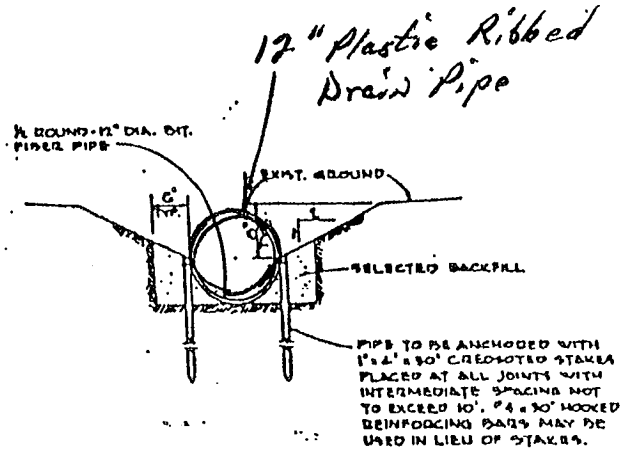
CHLORINE CONTACT TANK & FLOW RECORDER



AERATION CHANNEL



WARNING SIGN



AERATION CHANNEL SECTION

NOTE: 1. 12" diameter ribbed plastic drain pipe was installed in aeration channel in 1992 to eliminate problem with leaves, sticks, etc. clogging channel.

EFFLUENT LOG

pH - SM 18th 4500 H+-B DO - SM ~~18th~~ 20th 4500 O/G TRC - HACH - Method 8167 (SM ~~18th~~ 20th 4500-Cl-G)

DATE	PH SAMPLE		PH ANALYSIS		FLOW	DO			Cl_2 SAMPLE		Cl_2 ANALYSIS		DECHLOR SAMPLE		DECHLOR ANALYSIS		ANALYST'S INITIAL
	TIME	INITIAL	TIME	RESULT		TIME	MG/L	TEMP	TIME	INITIAL	RESID	TIME	TIME	INITIAL	RESID	TIME	
5-30-07	1030	WCS	1100	6.7	1800	1030	8.4	19.1	1030	WCS	1.5	1030					WCS
6-7-07					1800				1430	WCS	0.8	1430					WCS
6-14-07	0930	WCS	0940	6.8	2000	0940	8.2	20.2	0930	WCS	1.6	0930					WCS
6-20-07	0930	WCS	0945	6.9	1800	0945	8.3	20.4	0930	WCS	1.4	0930					WCS
6-28-07					1800				1400	WCS	1.6	1400					WCS
7-13-07					1800												WCS
7-18-07					1800												WCS
7-25-07					1800				~~1030~~ 1040	WCS	1.6	1030					WCS
7-30-07	1115	WCS	1120	6.7	1800	1115	7.7	23.6	1115	WCS	1.4	1115					WCS
8-8-07				6.6	1800	1120	7.5	25.0	1110	WCS	1.7	1110					WCS
8-13-07					1800				0900	WCS	1.6	0900					WCS
8-20-07	1345	WCS	1350	6.5	1800	1345	7.7	24.8	1340	WCS	1.6	1340					WCS
8-23-07					1800				1100	WCS	1.5	1100					WCS
9-1-07					1800				0900	WCS	1.8	0900					WCS
9-4-07					1800						0.8	1100					WCS
9-20-07	0800	WCS	0815	6.6	1800	0815	7.9	21.6	0800	WCS	1.8	0800					WCS
12-20-07	1115	WCS	1120	7.1	2000	1115	10.2	7.7	1100	WCS	1.8	1100					WCS
2-12-08	1030	WCS	1035	7.2	2000	1040	10.9	7.4	1030	WCS	1.3	1030					WCS
3-13-08	0845	WCS	0900	6.9	1800	0900	11.4	10.0	0845	WCS	1.8	0845					WCS
4-9-08					1800				1030	WCS	2.2	1030					WCS
4-28-08	1330	WCS	1350	7.3	1800	1330	10.3	15.5	1330	WCS	1.8	1330					WCS
5-6-08					1800				1100	WCS	1.7	1100					WCS
5-14-08	1420	WCS	1425	7.1	1800	1420	9.1	17.9	145	WCS	2.0	1415					WCS
5-19-08	1330	WCS	1345	7.2	1800	1330	8.7	18.2	1330	WCS	1.8	1330					WCS
5-21-08					1800	~~1515~~	~~8.4~~	~~20.1~~	1415	WCS	2.2	1426					WCS
6-10-08					1800						1.6	1030					WCS
6-13-08	1000	WCS	1010	7.1	1800	1010	8.1	20.9	1000	WCS	1.9	1000					WCS
6-18-08	1330	~~1345~~	1340	7.0	1800	1340	7.9	21.3	1330	WCS	1.7	1330					WCS
6-23-08					1800				1400	WCS	2.0	1440					WCS
7-1-08					1800				1300	WCS	1.6	1300					WCS
7-8-08	1000	WCS	1015	7.2	1800	1015	7.7	23.1	1008	WCS	1.4	1000					WCS

EFFLUENT LOG

pH - SM 18th 4500 H+-B DO - SM 20th 4500 O/G ~~TRC - HACH - Method 8167~~ (SM 20th 4500-Cl-G)

DATE	pH SAMPLE		pH ANALYSIS		FLOW	DO			Cl_2 SAMPLE		Cl_2 ANALYSIS		DECHLOR SAMPLE		DECHLOR ANALYSIS		ANALYST'S INITIAL
	TIME	INITIAL	TIME	RESULT		TIME	MG/L	TEMP	TIME	INITIAL	RESID	TIME	TIME	INITIAL	RESID	TIME	
7-17-08	1100	WCS	1115	7.4	1800	1115	8.0	22.2	1100	WCS	1.5	1100					WCS
7-23-08					1800				0900	WCS	1.7	0900					WCS
8-6-08	1030	WCS	1035	6.9	2000	1036	7.5	24.0	1020	WCS	1.5	1020					WCS
8-12-08					1800				1245	WCS	1.3	1245					WCS
8-18-08	1000	WCS	1015	6.8	1806	1006	7.7	23.9	1006	WCS	1.5	1000					WCS
8-27-08					1800				1315	WCS	1.6	1315					WCS
9-2-08					1800				0800	WCS	2.0	0800					WCS
9-9-08	1030	WCS	1045	6.9	2000	1045	7.9	22.9	1030	WCS	1.8	1030					WCS
9-22-08					1600				1430	WCS	2.0	1430					WCS
10-22-08	0900	WCS	0915	7.2	1600	0915	9.3	16.9	0900	WCS	2.0	0900					WCS
1-28-09	1205	WCS	1220	7.3	1600	1220	13.1	4.1	1200	WCS	1.2	1200					WCS